1
00:00:06,119 --> 00:00:03,749
gamma-ray burst now turns out to be the

2
00:00:08,310 --> 00:00:06,129
largest explosions in the in the

3
00:00:12,150 --> 00:00:08,320
universe they occur about about once a

4
00:00:13,860 --> 00:00:12,160
day at the time we flew Batsy on the

5
00:00:15,180 --> 00:00:13,870
gamma ray Observatory they were a

6
00:00:17,730 --> 00:00:15,190
complete mystery

7
00:00:20,040 --> 00:00:17,740
people had no idea what they were all

8
00:00:21,960 --> 00:00:20,050
they knew is that from different parts

9
00:00:24,750 --> 00:00:21,970
of the sky they would see these

10
00:00:26,910 --> 00:00:24,760
tremendous flashes of gamma rays coming

11
00:00:29,009 --> 00:00:26,920
from different directions they only have

12
00:00:31,560 --> 00:00:29,019
lasted from a fraction of a second to

13
00:00:33,380 --> 00:00:31,570

several minutes but during this time

14
00:00:36,240 --> 00:00:33,390
they were brighter than all the other

15
00:00:39,810 --> 00:00:36,250
objects in the sky in a gamma ray part

16
00:00:41,340 --> 00:00:39,820
of the spectrum including the Sun we

17
00:00:43,020 --> 00:00:41,350
didn't even know how far away they were

18
00:00:44,700 --> 00:00:43,030
we didn't know if they were in the solar

19
00:00:47,370 --> 00:00:44,710
system we didn't know if they were in

20
00:00:50,490 --> 00:00:47,380
our galaxy or in some other distant

21
00:00:54,090 --> 00:00:50,500
galaxy what turns out due to the

22
00:00:57,360 --> 00:00:54,100
observations of Batsy and the Italian

23
00:00:59,250 --> 00:00:57,370
Dutch satellite Beppo sacks we

24
00:01:01,650 --> 00:00:59,260
determined that the gamma-ray bursts

25
00:01:03,870 --> 00:01:01,660
were coming from the farthest reaches of

26
00:01:07,200 --> 00:01:03,880
the universe in fact they were the most

27
00:01:10,230 --> 00:01:07,210
distant objects known much much further

28
00:01:13,890 --> 00:01:10,240
than people ever thought they were when

29
00:01:16,680 --> 00:01:13,900
G ro was launched ever since I was a boy

30
00:01:19,740 --> 00:01:16,690
in grade school I I liked or loved

31
00:01:22,410 --> 00:01:19,750
science I had a large chemistry

32
00:01:26,310 --> 00:01:22,420
laboratory in the basement of my my home

33
00:01:29,430 --> 00:01:26,320
in st. Louis where I grew up then of

34
00:01:32,610 --> 00:01:29,440
course I went on to get a degree in in

35
00:01:36,530 --> 00:01:32,620
physics and and then a PhD in space

36
00:01:40,200 --> 00:01:36,540
science what gives me the most reward is

37
00:01:42,780 --> 00:01:40,210
actually making progress in a field of

38
00:01:45,750 --> 00:01:42,790

science my own particular field is gamma

39
00:01:47,910 --> 00:01:45,760
ray astrophysics coming up with a new

40
00:01:51,270 --> 00:01:47,920
finding and then publishing that finding

41
00:01:52,980 --> 00:01:51,280
or presented in an a scientific meeting

42
00:01:55,440 --> 00:01:52,990
or conference really gives me the

43
00:01:58,080 --> 00:01:55,450
greatest pleasure now that I'm a more

44
00:02:01,350 --> 00:01:58,090
senior scientist I enjoy seeing the

45
00:02:05,010 --> 00:02:01,360
younger students starting out in their

46
00:02:08,279 --> 00:02:05,020
careers in astrophysics and giving the

47
00:02:11,370 --> 00:02:08,289
papers at conferences and publishing

48
00:02:12,830 --> 00:02:11,380
papers in the field this this now gives

49
00:02:15,320 --> 00:02:12,840
me a lot of pleasure

50
00:02:17,750 --> 00:02:15,330
I enjoy mentoring these these younger

51
00:02:21,170 --> 00:02:17,760
scientists that that will take our place

52
00:02:24,259 --> 00:02:21,180
when when we're no longer here I was

53
00:02:26,930 --> 00:02:24,269
completely amazed surprised and an honor

54
00:02:29,300 --> 00:02:26,940
to receive the the SHA prize in

55
00:02:31,789 --> 00:02:29,310
astronomy I'm looking forward to

56
00:02:35,089 --> 00:02:31,799
receiving the the SHA prize along with